What is claimed is:

1. A method of identifying an anti-fungal compound that inhibits or reduces the activity of a fungal tRNA splicing ligase, said method comprising:

(a) contacting a population of 5' tRNA half molecules and a population of 3' tRNA half molecules with a fungal cell-free extract or a purified fungal tRNA splicing ligase and a compound or a member of a library of compounds; and

(b) measuring the ligation of the half molecules, wherein an anti-fungal compound that inhibits or reduces the activity of a fungal tRNA splicing ligase is identified if an increase in ligated half molecules is detected relative to the signal in the absence of the compound or the presence of a negative control.

2. A method of identifying an anti-fungal compound that inhibits or reduces the activity of a fungal tRNA splicing ligase, said method comprising:

(a) contacting a population of 5' tRNA half molecules and a population of 3' tRNA half molecules with a fungal cell-free extract or a purified fungal tRNA splicing ligase and a compound or a member of a library of compounds, wherein the termini of one of the populations of tRNA molecules is labeled with a fluorophore and the other is labeled with a quencher; and

(b) measuring the fluorescence of the half molecules, wherein an anti-fungal compound that inhibits or reduces the activity of a fungal tRNA splicing ligase is identified if an increase in the fluorescent signal is detectable relative to the signal in the absence of the compound or the presence of a negative control.

3. A method of identifying an anti-fungal compound that inhibits or reduces the activity of a fungal tRNA splicing ligase, said method comprising:

(a) contacting a population of 5' tRNA half molecules and a population of 3' tRNA half molecules with a fungal cell-free extract or a purified fungal tRNA splicing ligase and a compound or a member of a library of

compounds, wherein the termini of one of the populations of tRNA molecules is labeled with a fluorescent acceptor moiety and the other is labeled with a fluorescent donor moiety; and

(b) measuring the fluorescence of the half molecules, wherein an anti-fungal compound that inhibits or reduces the activity of a fungal tRNA splicing ligase is identified if a decrease the fluorescence emission of the fluorescent acceptor moiety at the wavelength of the fluorescent donor moiety relative to the fluorescence emission in the absence of the compound or the presence of a negative control is detected.

4. A method of identifying an anti-proliferative compound that inhibits or reduces the activity of an animalia tRNA splicing ligase, said method comprising:

(a) contacting a population of 5' tRNA half molecules and a population of 3' tRNA half molecules with an animalia cell-free extract or a purified animalia tRNA splicing ligase and a compound or a member of a library of compounds; and

(b) measuring the ligation of the half molecules, wherein an anti-proliferative compound that inhibits or reduces the activity of an animalia tRNA splicing ligase is identified if an increase in ligated half molecules is detected relative to the signal in the absence of the compound or the presence of a negative control.

5. A method of identifying an anti-proliferative compound that inhibits or reduces the activity of an animalia tRNA splicing ligase, said method comprising:

(a) contacting a population of 5' tRNA half molecules and a population of 3' tRNA half molecules with an animalia cell-free extract or a purified animalia tRNA splicing ligase and a compound or a member of a library of compounds, wherein the termini of one of the populations of tRNA molecules is labeled with a fluorophore and the other is labeled with a quencher; and

(b) measuring the fluorescence of the half molecules, wherein an anti-proliferative compound that inhibits or reduces the activity of an animalia

tRNA splicing ligase is identified if an increase in the fluorescent signal is detectable relative to the signal in the absence of the compound or the presence of a negative control.

6. A method of identifying an anti-proliferative compound that inhibits or reduces the activity of an animalia tRNA splicing ligase, said method comprising:

(a) contacting a population of 5' tRNA half molecules and a population of 3' tRNA half molecules with an animalia cell-free extract or a purified animalia tRNA splicing ligase and a compound or a member of a library of compounds, wherein the termini of one of the populations of tRNA molecules is labeled with a fluorescent acceptor moiety and the other is labeled with a fluorescent donor moiety; and

(b) measuring the fluorescence of the half molecules, wherein an anti-proliferative compound that inhibits or reduces the activity of an animalia tRNA splicing ligase is identified if a decrease the fluorescence emission of the fluorescent acceptor moiety at the wavelength of the fluorescent donor moiety relative to the fluorescence emission in the absence of the compound or the presence of a negative control is detected.

7. The method of any one of claims 1-6, wherein said method further comprises a step wherein the structure of the compound that modulates tRNA splicing ligase activity is determined.

8. The method of claim 1, 2 or 3, wherein said cell-free extract is a yeast cell-free extract.

9. The method of claim 4, 5 or 6, wherein said cell-free extract is a mammalian cell-free extract.

10. The method of claim 4, 5 or 6, wherein said cell-free extract is a human cell-free extract.

11. The method of any one of claims 1-6, wherein said compound is selected from a combinatorial library of compounds comprising peptoids; random biooligomers; diversomers such as hydantoins, benzodiazepines and dipeptides; vinylogous polypeptides;

nonpeptidal peptidomimetics; oligocarbamates; peptidyl phosphonates; peptide nucleic acid libraries; antibody libraries; carbohydrate libraries; and small organic molecule libraries.

12. The method of claim 11, wherein said small organic molecule libraries are libraries of benzodiazepines, isoprenoids, thiazolidinones, metathiazanones, pyrrolidines, morpholino compounds, or diazepindiones.

13. The method of any one of claims 1-6, wherein said method further comprises a step wherein the structure of the compound that modulates tRNA splicing endonuclease activity is determined.

14. The method of claim 13, wherein said structure of the compound is determined by mass spectroscopy, NMR, vibrational spectroscopy, or X-ray crystallography.

15. The method of claim 1, 2 or 3, wherein said compound directly binds said fungal tRNA splicing ligase.

16. The method of claim 4, 5 or 6, wherein said compound directly binds said fungal tRNA splicing ligase.

17. The method of any one of claims 1-6, wherein said compound binds to the substrate.

18. A method of treating, preventing or ameliorating a fungal infection or a symptom thereof, comprising administering an effective amount of a compound identified according to the method of claim 1, 2 or 3, or a pharmaceutically acceptable salt thereof.

19. The method of claim 18, wherein said fungal infection is a yeast infection.

20. A method of treating, managing, or ameliorating a proliferative disorder or a symptom thereof, comprising the administering to a subject an effective amount of a compound identified according to the method of claim 4, 5 or 6, or a pharmaceutically acceptable salt thereof.

21. The method of claim 20, wherein the proliferative disorder is cancer, psoriasis or pulmonary fibrosis.

22. The method of claim 1, 2 or 3 further comprising assessing the effect of the compound on animalia tRNA splicing ligase.

23. The method of any one of claims 1-6 further comprising a step wherein the cytotoxic activity of said compound is determined.

24. The method of any one of claims 1-6 further comprising a step wherein the cytostatic activity of said compound is determined.

25. The method of claim 18 or 20, wherein said subject is a human.